

Notice of Allowability

Application No.

10/655,694

Examiner

Marie R. Yamnitzky

Applicant(s)

KIM, JANG-SUB

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed Feb. 02, 2006.
2. ☒ The allowed claim(s) is/are 1-4, 6 and 7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 03052006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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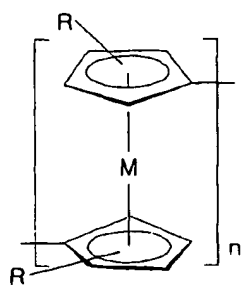
An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jon Ikegami on March 03, 2006.

Claims 3 and 4 have been amended as follows:

1. (Previously Presented) A polymer organic electroluminescence display comprising a substrate, an anode, a polymer organic luminescence layer, and a cathode, where the polymer organic luminescence layer comprises a compound represented by the following Chemical Formula 1:

Chemical Formula 1



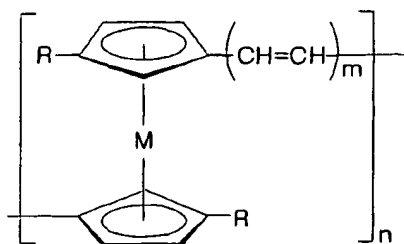
wherein R is independently or simultaneously hydrogen, a linear or branched C₁ to C₂₀ alkyl, or an aromatic group; M is a transition metal; and n is an integer between 6 and 100.

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2. (Previously Presented) A polymer organic electroluminescence display comprising a substrate, an anode, a polymer organic luminescence layer, and a cathode, where the polymer organic luminescence layer comprises a compound represented by the following Chemical

Formula 2:

Chemical Formula 2

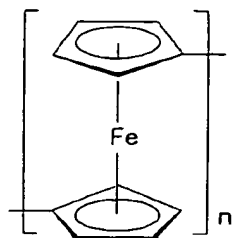


wherein R is independently or simultaneously a linear or branched C₁ to C₂₀ alkyl or an aromatic group; M is a transition metal; m is an integer between 1 and 100; and n is an integer between 6 and 100.

3. (Currently Amended) A polymer organic electroluminescence display comprising a substrate, an anode, a polymer organic luminescence layer, and a cathode, where the polymer organic luminescence layer comprises a compound represented by the following Chemical Formula 3 ~~with an electroconductivity of $\sigma = 10^{-2} \text{ Sem}^+$ after oxidation between an anode and a cathode:~~

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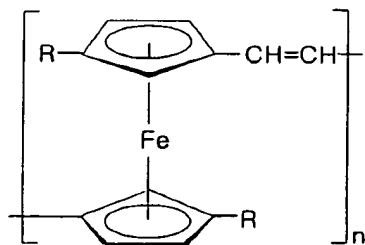
Chemical Formula 3



wherein n is an integer between 6 and 100.

4. (Currently Amended) A polymer organic electroluminescence display comprising a substrate, an anode, a polymer organic luminescence layer, and a cathode, where the polymer organic luminescence layer comprises a compound represented by the following Chemical Formula 4 ~~with an electroconductivity of $\sigma = 10^{-2} \text{ Sem}^{-1}$ after oxidation between an anode and a cathode:~~

Chemical Formula 4



wherein R is independently or simultaneously a linear or branched C_1 to C_{20} alkyl or an aromatic group, and n is an integer between 6 and 100.

5. (Canceled)

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6. (Original) A display device comprising the polymer organic electroluminescence display according to any one of Claims 1 to 4.

7. (Original) The display device according to Claim 6, which is a flat panel display (FPD).

Claims 3 and 4 have been amended similar to applicant's amendment to claims 1 and 2 in the amendment filed February 02, 2006. With respect to the electroconductivity limitation which was added to claims 3 and 4 by applicant's amendment filed February 02, 2006, and deleted by this examiner's amendment, it is the examiner's position that the limitation raised issues under 35 U.S.C. 112, 2nd paragraph, and also did not clearly patentably distinguish the claimed display over the previously applied prior art. While applicant does not necessarily agree with the examiner's position regarding the electroconductivity limitation, applicant agreed to amend claims 3 and 4 as shown in the examiner's amendment. The examiner notes that the electroconductivity limitation is not necessary to patentably distinguish present claims 3 and 4, which now require the polyferrocene compound of the specified formula to be present in the luminescence layer, over the previously applied prior art.

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The following is an examiner's statement of reasons for allowance:

The prior art does not disclose or suggest a polymer organic electroluminescence display of the structure set forth in present claims 1-4 wherein a compound represented by Chemical Formula 1, 2, 3 or 4 is present in a polymer organic luminescence layer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY
March 05, 2006



MARIE YAMNITZKY
PRIMARY EXAMINER

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